Electronically Filed
Docket: 16-CRB-0003-PR (2018-2022) (Remand)
Filing Date: 01/24/2022 07:17:34 PM EST

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022) (Remand)

SECOND SUPPLEMENTAL WRITTEN REMAND TESTIMONY OF DR. GREGORY K. LEONARD

I. ASSIGNMENT

1. The Copyright Royalty Board Judges ("the Judges") issued Orders on December 9, 2021 and January 6, 2022.[1] I have been asked by Google to review and respond to these Orders.

2. My analysis and this report are based on information currently available to me. I reserve the right to augment or update opinions based on information learned in ongoing discovery.

II. ASSESSMENT OF THE JUDGES' WORKING PROPOSAL FOR CALCULATING THE HEADLINE MUSICAL WORKS ROYALTY RATE FOR THE PHONORECORDS III PERIOD

3. In their orders, the Judges have proposed a methodology for calculating the all-in musical works royalty rate that would be applicable to the Phonorecords III period ("Working Proposal"). The Working Proposal involves: (1) determining the maximum total royalty rate for musical works rights and sound recording rights (as set by the major labels) that would leave services with sufficient revenue to "survive" in the marketplace, and (2) dividing this maximum total royalty rate between sound recordings and musical works according to a 3.82:1 sound recording-to-musical works ratio derived from the Shapley Value analyses contained in the Initial Determination.[2]

4. I have a number of concerns about the Working Proposal and, in particular, the inconsistency of the Working Proposal with the 801(b)(1) factors.

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[1] Notice and *Sua Sponte* Order Directing the Parties to Provide Additional Materials, *In re: Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)*, Docket No. 16-CRB-0003-PR (2018–2022) (Remand), December 9, 2021; Order Granting in Part and Denying in Part Copyright Owners' Motion for Reconsideration or, in the Alternative, Clarification (Restricted), *In re: Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)*, Docket No. 16-CRB-0003-PR (2018–2022) (Remand), January 6, 2022.

[2] December 9, 2021 Order, p. 2-4.

A. The Working Proposal Assumes a One-For-One See-Saw, Which Has No Sound Theoretical Basis and Is Inconsistent with Real-World Outcomes

5. The Working Proposal implicitly assumes the existence of a one-for-one "see-saw" between the sound recording royalty rate and the musical works royalty rate. An underpinning of the Working Proposal is that the labels have such strong complementary oligopoly power that they can extract from the services all surplus that remains after the services have covered their costs and paid the statutory musical works royalties. Under the Working Proposal, this necessarily builds in the assumption that the labels would decrease their sound recording rate by the amount of any increase in the musical works rate so as to leave the services at the same "survival" level of revenue retention. As I have discussed in previous written testimony in this proceeding, the assumption that record labels adjust sound recording rates in response to changes to musical works rates on a one-for-one basis is based on a highly stylized theoretical model with many unsupported assumptions that is directly contradicted by real-world outcomes.[3] Therefore, any methodology that implicitly assumes a one-for-one see-saw is flawed.

6. Moreover, if in the real world the sound recording rate were actually to decrease, but it decreased by less than an increase in the statutory musical works rate, so that the total royalty rate increases, services could be left with less than the "survival" level of revenue retention. The likely result would be some services exiting the market, an increase in service prices to consumers, or both.[4] Such an outcome would harm services and consumers. My reading of the 801(b)(1) factors

[3] Written Direct Remand Testimony of Dr. Gregory K. Leonard ¶¶ 15-22; Written Supplemental Remand Testimony of Dr. Gregory K. Leonard ¶¶ 21-25.

[4] This discussion applies when a rate is being set prospectively. As noted below in the next paragraph, however, given the reality that the musical works rate will be set for the Phonorecords III period only after most of that period is in the past, at this point, the Judges' task in Phonorecords III is largely a retrospective one.

is that a "fair" return to services, as well as the interests of consumers, should be taken into account (e.g., the availability of works to the public and their prices is of concern to consumers).

7. As a more practical matter, the assumption of a one-for-one see-saw ignores an important fact about the Phonorecords III proceeding: at this point, the rate-setting exercise is largely a retrospective one. The Phonorecords III rate period will largely be over by the time the Judges make a rate determination. The sound recording royalties for most of the period will already have been paid by the services, and the sound recording royalty obligations for whatever time remains in the Phonorecords III rate period will be determined by pre-existing contracts negotiated by labels and services in the past. I am not aware of any mechanism by which the services could seek to recover previously paid sound recording royalties if the Judges were to set a musical works royalty that resulted in total royalties above the "survival" level. Thus, the sound recording royalties can be thought of as fixed and exogenous with respect to the setting of the musical works royalty rate for the Phonorecords III rate period. That means that, as a practical matter, there is now a zero see-saw for the Phonorecords III period, as opposed to the one-for-one see-saw that the Working Proposal assumes.

B. The Working Proposal Relies Heavily on Shapley Value Models That Provide an Unsound Basis for Quantification

8. The Working Proposal uses the results of Shapley Value models put forward by various experts in this case to derive the sound recording-to-musical works ratio that is then used to apportion the maximum total royalty between sound recordings and musical works. I have discussed at length in my previous written and live testimony why these Shapley Value models do not provide a sound quantitative basis for determining the musical works royalty in this

proceeding.[5] Instead, real-world benchmarks should be used to determine the sound recording to musical works ratio. The licenses for the Pandora non-interactive service and permanent digital downloads are two examples of such benchmarks (as discussed in more detail below).

C. The Working Proposal is Inconsistent With the 801(b)(1) Factors

9. As noted above, the Working Proposal fails to consider potential adverse outcomes, including the potential impact on consumers, that could result from the total royalty to services exceeding the "survival" level.

10. In addition, because its launching-off point is that the services should receive only their "survival" level of revenue retention, the Working Proposal does not provide services with the "fair" return on their contributions that I understand the 801(b)(1) factors require. Indeed, the Shapley Value results on which the Judges rely for other purposes assign to the services a "fair" share of revenue of [redacted]% to [redacted]% (implying a total royalty of only [redacted]% to [redacted]%), which exceeds substantially all of the potential measures of the services' "survival" level of revenue retention that the Judges identified in their Orders.[6] That is, if one assumes the validity of the Shapley Value models (which I do not), the "fairness" considerations of the 801(b)(1) factors would suggest that

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[5] *Id.*; Trial Transcript at 5183:5-5185:7 (discussing my reasons for not using Shapley modeling).

[6] The majority's 15.1% musical works rate is the midpoint of its "zone of reasonable rates" (Initial Determination, p. 75). The lower end of this zone was based on a total royalty of [redacted]% and (unadjusted) TCC of [redacted]%, while the top end of the zone was based on a total royalty of [redacted]% and (unadjusted) TCC of 40% (*Id.*). This suggests that the midpoint of the range (i.e., the 15.1% rate) corresponds to a total royalty that is the midpoint between [redacted]% and [redacted]%, or [redacted]%. Alternatively, as the majority noted, the 15.1% musical works rate is also consistent with a total royalty of [redacted]% and an (unadjusted) TCC of [redacted]% (Initial Determination, p. 86). Note that the total royalty derived from the Shapley Value results, whether [redacted]% or [redacted]%, corresponds to the situation where the labels, musical works copyright owners, and services each receive their Shapley Values. As noted below, in the real world, this situation does not occur; the labels capture more than their Shapley Values due to their complementary oligopoly power and, as a result, it is impossible for both the services and musical works copyright owners to receive their respective Shapley Values.

the services are entitled to more than the "survival" level of revenue retention that the Working Proposal seeks to deliver.

11. Put another way, the "fairness" considerations of the 801(b)(1) factors are violated by the Working Proposal because it assigns to the copyright owners virtually their entire Shapley Value, while assigning to the services a figure well below their Shapley Value.

12. The central difficulty, as I understand it, is that the Judges have concluded that they do not have the authority to set the sound recording royalty rate and thus are not seeking to set the sound recording rate. Given that the sound recording rate is unregulated and the labels have complementary oligopoly power, the labels have captured more than their Shapley Value. Consequently, either the services or the musical works copyright owners, or both, must ultimately receive amounts below their Shapley Values. The "fairness" considerations of the 801(b)(1) factors suggest that both the services and the musical works copyright owners should receive amounts below their Shapley Values.[7] In contrast, the Working Proposal requires the services to bear the entire burden of the labels' complementary oligopoly power.

D. The Working Proposal Does Not Account for the Effectively Retrospective Nature of the Proceeding

13. As noted above, the Phonorecords III proceeding is effectively now a retrospective one. The Phonorecords III rate period is almost over and the sound recording royalties have largely been paid (or the rates have been set by contract), making them exogenous with respect to the musical works rate that is set in this proceeding.

[7] In other words, the focus should be on the ratio of the Shapley Values of the services and musical works copyright owners, rather than the ratio of the Shapley Values of the labels and the musical works copyright owners.

14. The Working Proposal does not appear to take this fact directly into account. The task facing the Judges at this point could be reformulated as one of dividing the realized surplus that remains after subtracting the sound recording royalties (at their actual levels) between the services and the musical works copyright owners. If one accepted the use of Shapley Value models in this context, one could implement a Shapley Value model to perform this division. While I am not aware of this type of model appearing in the record, Dr. Marx's "rebalancing" analysis, in which she takes the remaining surplus after sound recording royalties have been paid and divides it between the services and musical works copyright owners in proportion to their Shapley Values, is a closely related approach.[8]

III. PREFERRED IMPLEMENTATIONS OF THE WORKING PROPOSAL

15. While I maintain that real-world benchmarks should be used directly to determine the musical works rate (as discussed further below), in this section I lay out what I consider to be the "best" implementations of the Working Proposal. Again, there are two inputs to the calculation: the services' "survival" level of revenue retention, or equivalently the "survival" level of total royalty, and the sound recording to musical works ratio used to divide that total royalty between the labels and musical works copyright owners.

A. "Survival" Level of Total Royalty

16. The December 9, 2021 Order, which explains the Working Proposal, characterizes the "survival" level as a "*market-derived* data point" based on the percent of revenue "the Majors allow the interactive service sector to retain."[9] Accordingly, the Judges seem to envision that the

[8] See Marx WSSRT, Figure 3. Dr. Marx calculates the musical works royalty on this basis to be between [redacted]

[9] December 9, 2021 Order, p. 2.

survival level depends on the knowledge and decision-making of the labels at the time of their negotiations with the services. This presents the difficult task of surmising — without direct evidence — what the labels knew and/or expected at the time of those negotiations.

17. As a technical matter, the "survival" level of total royalty rate should be the rate that would allow the services to cover their long-run economic costs, including an appropriate risk-adjusted return on capital employed (including investments that may be sunk at the time of assessment). Among the figures the Judges identified in the record, the testimony of Spotify's Mr. McCarthy provides the closest match conceptually. Mr. McCarthy testified that [redacted]."[10] If the Judges are seeking to use something approximating an actual survival rate for services, this is a relevant datapoint.

18. Alternatively, one could consider assessing the level of total royalty rate that the labels expected would prevail during the Phonorecords III period. Using the total royalty rate for this period is conservative (from the point of view of the services) and may be artificially high because the services may have been willing to pay total royalties in the short-run that were higher than the level required for long-run viability in anticipation that the total royalty rate would be lower in the future.

19. To evaluate total royalty rate, Spotify's royalties are a useful datapoint for several reasons. First, [redacted]

[10] McCarthy WDT ¶¶ 28-29. [redacted]

[redacted], so the period of the agreements line up well with the period under evaluation.[11] Second, [redacted]. Third, the Initial Determination used Spotify as a good representative for the interactive streaming marketplace.[12] Similarly, Spotify's rates were used as a datapoint to represent interactive streaming rates in the recent Web V proceeding.[13]

20. Given the Judges' stated objective to determine the amount that labels allow the services to retain, it is most useful to look at "headline" rates because these rates are a reasonable estimate of expected rates at the time of negotiations. Another reason to look at headline rates is that the rate produced by the Working Proposal would itself serve as the headline rate in the statutory rate structure if the Judges, as suggested by the Orders, intend to pair it with mechanical floors or other alternatives to the percentage-of-revenue prong. The headline sound recording rate in Spotify's sound recording agreements that govern during the Phonorecords III period is [redacted]%.[14] For musical works royalties, we do not know what the labels expected, but what we do know is that the labels would have at least known the prevailing Section 115 rates and could have reasonably believed that a likely outcome was that musical works royalties would remain at the existing (Phonorecords II) statutory headline rate going forward, especially since those rates had (at the time of negotiation of the Spotify agreements) already been in place for many years (dating back to the Phonorecords

[11] Bonavia RWDT ¶¶ 17-19; Marx WSSRT, fn. 22.

[12] The Initial Determination calculates the "adjusted" TCC figures for the various Shapley models using the assumption that the total royalty rate "in the marketplace" was [redacted]% (Initial Determination, fn. 133); the [redacted]% figure is from Spotify (Initial Determination, p. 72 ("Using Spotify as an example, however, actual combined royalties for musical works and sound recordings are approximately [redacted]% of revenue.")).

[13] Web V Initial Determination, p. 126.

[14] Web V Initial Determination, p. 13.

I proceeding).[15] Adding the statutory headline musical works rate of 10.5% to the headline sound recording rate of [redacted]% yields a total royalty rate of [redacted]%.[16]

21. It is important to recognize that the "survival rate" may well differ across services and time. To the extent the Judges set the musical works rate such that Spotify (i.e., one of the largest and most prominent services) survives, other services may not be viable at the same rate.

22. The other potential total royalty measures identified in the January 6, 2022 order[17] are flawed:

- Dr. Eisenach's claim that the "industry standard" is that [redacted]% of service revenue is allocated to rightsholders is inconsistent with both the sum of [redacted] sound recording and musical works headline rates as well as [redacted] total effective rates.
- Dr. Eisenach's claim that the "standard" (headline) sound recording rate is [redacted]% is inconsistent with [redacted].[18]
- Dr. Watt's "conservative" figure of [redacted]% for the total royalty is the product of his Shapley Value analysis, rather than a real-world total royalty rate that any service actually paid.[19] Nor is this figure based on a detailed analysis of the services' long-run costs that need to be covered for viability. Finally, for all of the reasons previously discussed, the results of the Shapley Value models (particularly Dr. Watt's Shapley model, on which the majority

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15 [redacted]

16 As an alternative to the headline rates, one could consider the effective rate for sound recordings if there is reason to believe that the labels expected certain minimum fees or other aspects of the label agreements to be triggered that would push the effective rate about the headline rate. In that instance, the effective rate for sound recordings is [redacted]%. See Marx WSSRT, Figure 2. Adding this effective rate to a reasonable assumption about musical works rates during the period (10.5%) results in a total royalty of [redacted]%. Note, however, that effective rates generally are difficult to predict given uncertainty about the extent to which various alternative prongs may be triggered. In addition, if effective rates, which already incorporate the effect of alternative prongs, are plugged into the Working Proposal to derive a statutory percentage of revenue musical works rate, the alternative prongs in the statutory royalty structure should then be eliminated or at least reformulated to avoid double-counting.

17 January 6, 2022 Order, pp. 9-10.

18 [redacted] Web V Initial Determination, fn. 51.

19 Watt WRT ¶ 6.

declined to rely for the sound recording to musical works ratio[20]) do not provide a reliable quantitative basis for determining the musical works rate in this proceeding.

- Dr. Watt's claim that Spotify's non-content costs were forecasted (in 2016) to decrease to [redacted]% of revenue in 2017, which the Judges assume allows for a total royalty of [redacted]%, is inconsistent with the testimony of Mr. [redacted]. Moreover, it is unlikely that the non-content cost figure Dr. Watt cites includes an appropriate risk-adjusted return on capital. In general, such accounting cost measures would not include such a return and thus would be downward biased.[21] A company will not be viable in the long run if it is unable to provide a competitive risk-adjusted return to its investors. Finally, as Dr. Marx discusses, [redacted].[22]

B. The Sound Recording to Musical Works Ratio

23. A superior alternative to using the sound recording to musical works ratio of 3.82:1 derived from the Shapley Value results is to use a real-world benchmark.

24. The Initial Determination found that Pandora's non-interactive service was a useful benchmark and noted that the sound recording to musical works ratio for this service was [redacted].[23] The sound recording royalty rate for non-interactive services is set by the CRB under the WBWS standard (with effective competition). The musical works rate (for performance rights) for non-interactive services is set in the shadow of the rate court (which similarly requires rates to be set at fair, competitive levels). Thus, the non-interactive ratio has rates the parties or tribunal has determined to be approximately effectively competitive in both the numerator and denominator. Accordingly, to obtain a competitive musical works rate, the non-interactive ratio should be

[20] Initial Determination, p. 75 ("The Judges give Professor Watt's 1.3:1 [Shapley-derived sound recording to musical works] ratio no weight.") (footnote omitted).

[21] See, e.g., Franklin M. Fisher and John J. McGowan, "On the Misuse of Accounting Rates of Return to Infer Monopoly Profits," *American Economic Review*, Vol. 73, 1983, pp. 82-97.

[22] Marx WSSRT, fn. 11.

[23] Initial Determination, pp. 50-51.

applied to a competitive sound recording rate within the Judges' Working Proposal. If the ratio were instead applied to a sound recording rate that incorporated a market power premium, that market power premium would be incorporated into the resulting musical works royalty, rendering it not competitive.[24] In the case of interactive streaming, for which the sound recording rates are not governed by any regulation, the labels have complementary oligopoly power and therefore the sound recording rates are not consistent with effective competition. The Final Determination in Web V concluded that interactive streaming sound recording rates should be decreased by [redacted].[25]

25. While not adopting permanent digital downloads (PDDs) as a benchmark, the Initial Determination nevertheless found that PDDs were useful in developing a zone of reasonableness for the musical works rate.[26] The Initial Determination cited my calculations that found, for 2015, the musical works royalty as a percentage of revenue for PDDs to be 8.7% and the TCC percentage to be [redacted].[27] This implies a sound recording to musical works ratio of [redacted]. The Initial Determination also cited my calculations that found that, for 2016, the musical works

[24] As an example, suppose the benchmark market has a competitive sound recording rate of 50% and a competitive musical works rate of 10% (for a ratio of 50%/10% or 5:1). In the "target" market to which the benchmark will be applied, while the competitive sound recording rate would be 50%, the labels are unconstrained by regulation and thus in fact are able to charge a 55% sound recording rate. In the context of this example, given the benchmark, the competitive musical works rate in the target market is 10%. However, if we mistakenly applied the 5:1 ratio from the benchmark market to the unregulated 55% sound recording rate in the target market, we would obtain a musical works royalty of 11%, above the competitive level of 10%. If, instead, we apply the 5:1 ratio to the sound recording rate in the target market, after adjusting to remove the market power premium, we obtain the correct answer for the competitive musical works royalty (50%/5 = 10%).

[25] Web V Initial Determination, p. 72. To the extent that the Judges choose to rely on sources other than Spotify for the "survival rate," it would be appropriate to use the [redacted] market power adjustment rather than the [redacted] market power adjustment.

[26] Initial Determination, p. 61 ("The Judges find that the [PDD] benchmark determined by this second approach is useful—not to establish the appropriate benchmark—but to incorporate into the development of a zone of reasonableness of royalty rates within the rate structure adopted by the Judges in this proceeding.").

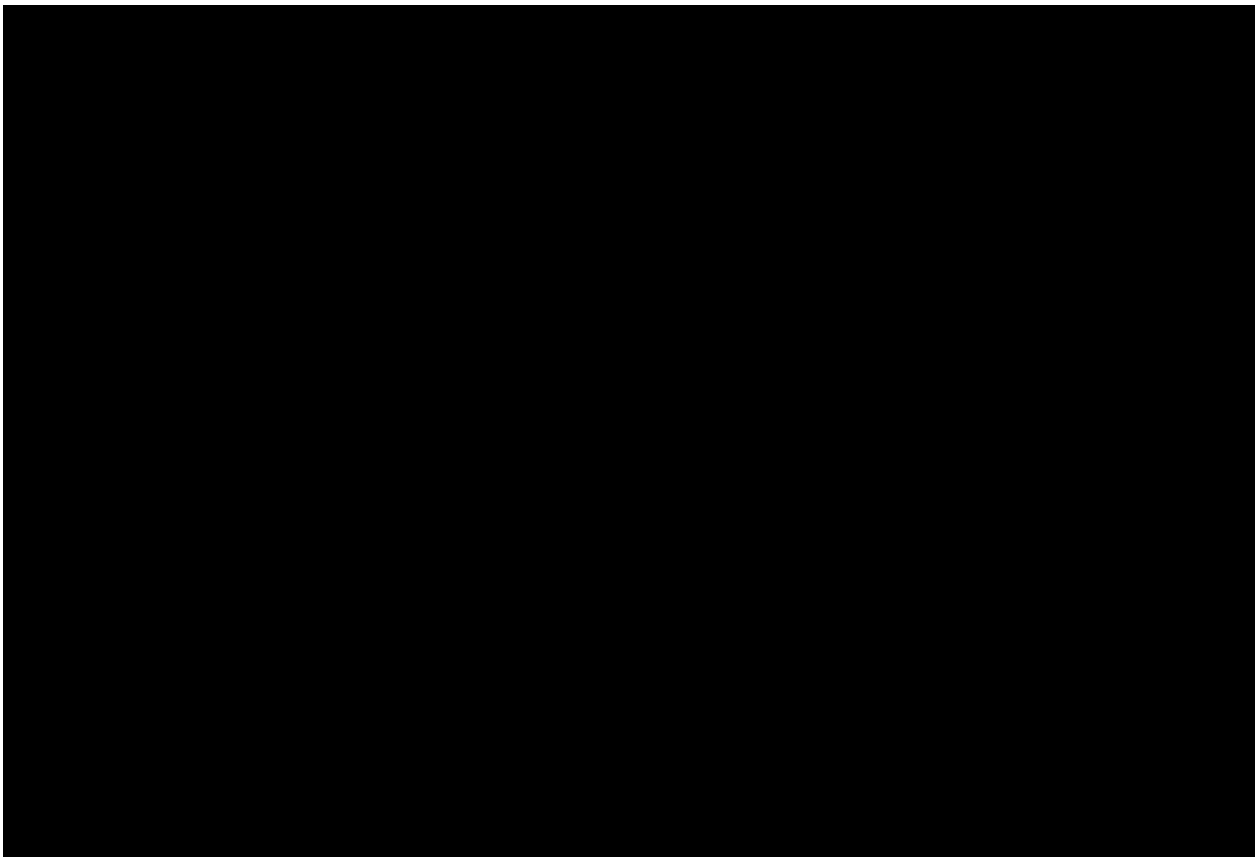
[27] Initial Determination, pp. 60-61.

royalty as a percentage of revenue for PDDs was 9.6%.[28] Given that PDD retailers retain [redacted] of revenue, this implies a sound recording to musical works ratio for PDDs of [redacted] for 2016. Given that the publishers and labels voluntarily agreed to these rates for the Phonorecords III period (and again in Phonorecords IV), the real-world PDD ratio of [redacted] is a useful guidepost to suggest that the 3.82:1 ratio does not comport with labels' and musical works copyright owners' own view of the appropriate ratio in a related licensing context.

C. Results

26. The following table summarizes the results of implementing the Working Proposal using the total royalty figures discussed above and the 3.82:1 ratio from the Initial Determination and the [redacted] ratio from Pandora.

[28] Initial Determination, p. 61.



IV. DIRECT USE OF REAL-WORLD BENCHMARKS

27. An alternative to the Working Proposal is to derive the appropriate musical works rate for the Phonorecords III period by directly applying valid real-world benchmarks.

28. Judge Strickler's Dissenting Opinion concluded that the Phonorecords II settlement benchmark is an appropriate benchmark.[29] The Phonorecords II rate and rate structure were the result of a voluntary settlement between the services and the musical works copyright owners. It was with this structure in place that interactive streaming experienced substantial growth in subscribers and musical works copyright owners saw a concomitant growth in interactive

[29] Dissenting Opinion of Judge David R. Strickler, p. 12.

streaming mechanical royalties. The headline musical works royalty rate in the Phonorecords II rate structure is 10.5%.

29. Other benchmarks support a headline musical works royalty in this same range. As noted above, the Initial Determination concluded that Pandora's non-interactive service is a useful benchmark. The sound recording to musical works ratio of [redacted] from this service can be applied to the sound recording rate for interactive streaming after making an adjustment for market power. As noted above, Spotify's headline sound recording rate is [redacted]%. Reducing this rate by the Web V market power adjustment of [redacted]% and dividing by the Pandora ratio, yields a musical works rate of 10.5%.[30] [redacted]

30. As noted above, the Initial Determination concluded that PDDs were of use in developing a zone of reasonableness for the musical works rate. In 2016, the musical works royalty for PDDs expressed as a percentage of PDD revenue was 9.6%. This musical works rate for PDDs provides guidance as to the appropriate musical works rate for interactive streaming.

Gregory K. Leonard

Dated: January 24, 2022

[30] Again, if the sound recording rate from a service other than Spotify were used for this calculation, the market power adjustment of [redacted]% should be used.

Proof of Delivery

I hereby certify that on Monday, January 24, 2022, I provided a true and correct copy of the Greg Leonard SSWRT 1-24-22 (Public) to the following:

Amazon.com Services LLC, represented by Scott Angstreich, served via ESERVICE at sangstreich@kellogghansen.com

Spotify USA Inc., represented by Richard M Assmus, served via ESERVICE at rassmus@mayerbrown.com

Pandora Media, LLC, represented by Benjamin E. Marks, served via ESERVICE at benjamin.marks@weil.com

National Music Publishers' Association (NMPA) et al, represented by Benjamin Semel, served via ESERVICE at Bsemel@pryorcashman.com

Nashville Songwriters Association International, represented by Benjamin K Semel, served via ESERVICE at Bsemel@pryorcashman.com

Johnson, George, represented by George D Johnson, served via ESERVICE at george@georgejohnson.com

Signed: /s/ David P Mattern